

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

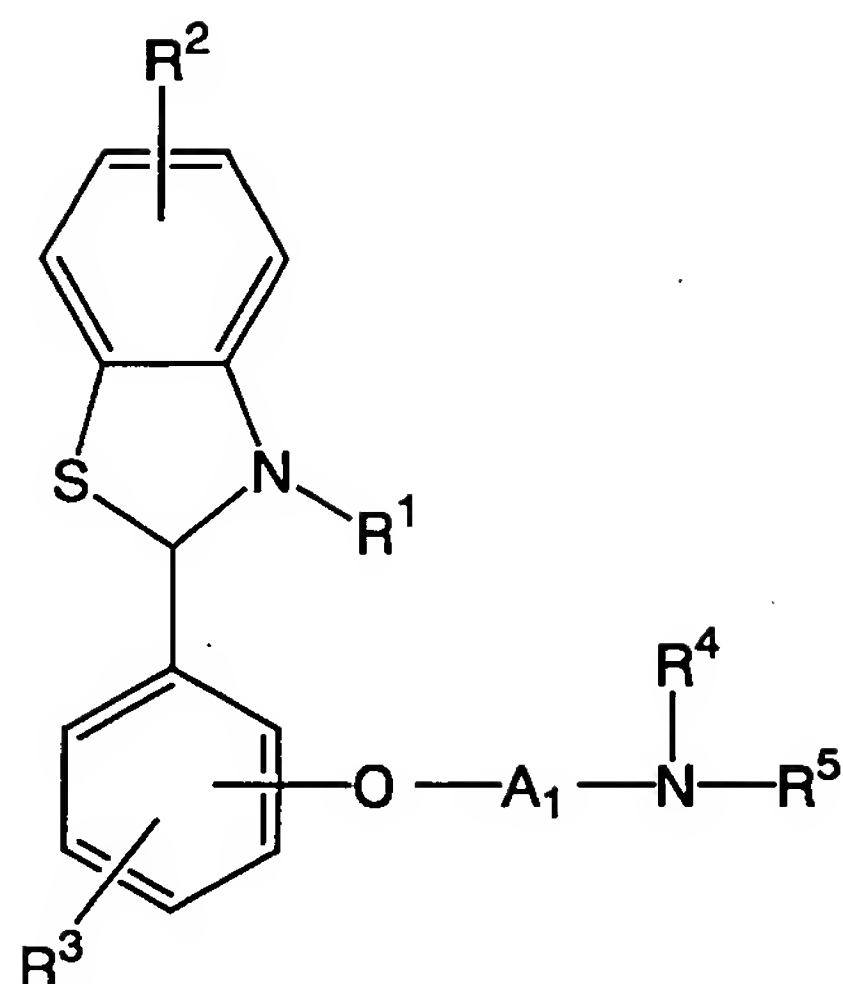
**Listing of Claims:**

Claims 1-9 (canceled)

Claims 10. (new) A method for inhibiting a pain threshold decrease comprising administering to a patient an effective amount of a  $\kappa$ -opioid receptor agonist.

Claims 11. (new) A method for treating chronic pain comprising administering to a patient an effective amount of a  $\kappa$ -opioid receptor agonist.

Claim 12. (new) The method as claimed in claim 10, wherein the  $\kappa$ -opioid receptor agonist is a compound represented by the following general formula or a pharmaceutically acceptable salt thereof



wherein  $R^1$  represents an acyl group;

$R^2$  and  $R^3$ , which are the same or different, represent a hydrogen atom, a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, an alkylcarbonyl group, an arylcarbonyl group, an amino group, an alkylamino group, an arylamino group, a cyano group or a nitro group, the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group, the aryloxy group, the alkylcarbonyl group, the arylcarbonyl group, the alkylamino group or the arylamino group can be substituted with a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, an alkylcarbonyl group, an arylcarbonyl group, an amino group,

an alkylamino group, an arylamino group, a cyano group or a nitro group;

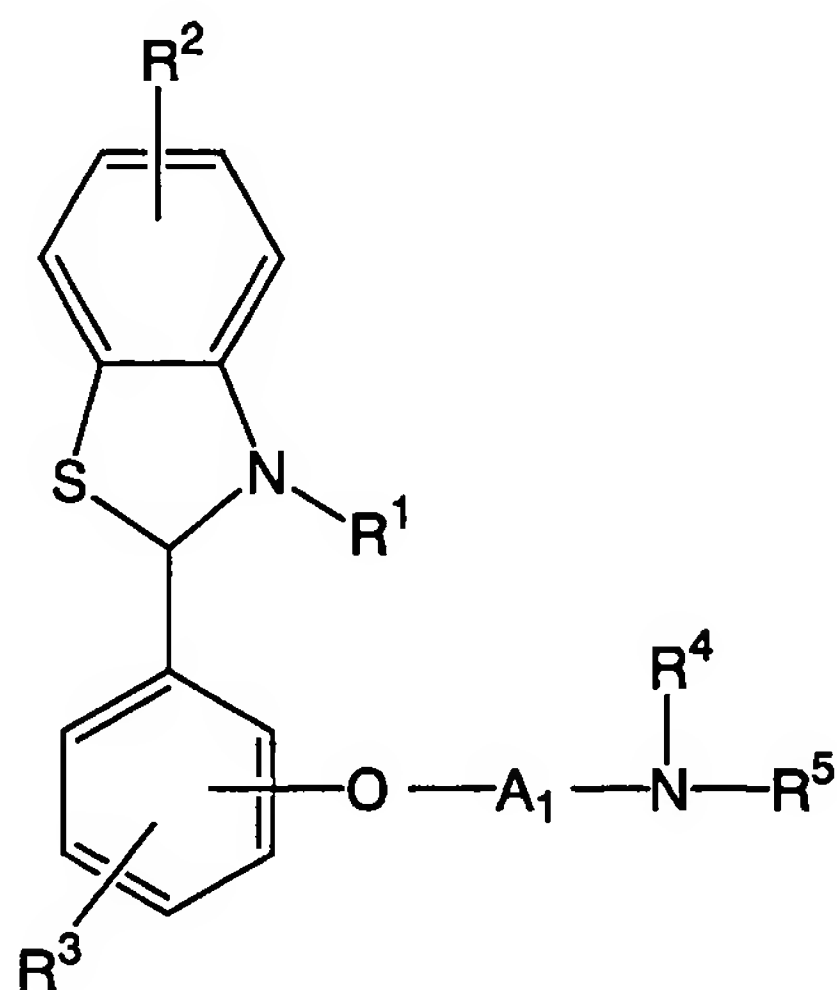
$R^4$  and  $R^5$ , which are the same or different, represent a hydrogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group or an acyl group, the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group, the aryloxy group or the acyl group can be substituted with a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, an alkylcarbonyl group, an arylcarbonyl group, an amino group, an alkylamino group, an arylamino group, a mercapto group, an alkylthio group, an arylthio group, a cyano group, a nitro group or a heterocycle, and further the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group, the aryloxy group, the alkylcarbonyl group, the arylcarbonyl group, the alkylamino group, the arylamino group, the alkylthio group, the arylthio group or the heterocycle can be substituted with an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, an alkoxyalkoxy group, a carboxy group or its ester;

$R^4$  and  $R^5$  can be bound to form a heterocycle, the heterocycle can be substituted with a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy

group, an aryloxy group, a carboxy group or its ester, and further the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group or the aryloxy group can be substituted with an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, an alkoxyalkoxy group, a carboxy group or its ester; and

A<sub>1</sub> represents an alkylene group.

Claim 13. (new) The method as claimed in claim 11, wherein the  $\kappa$ -opioid receptor agonist is a compound represented by the following general formula or a pharmaceutically acceptable salt thereof



wherein R<sup>1</sup> represents an acyl group;

R<sup>2</sup> and R<sup>3</sup>, which are the same or different, represent a hydrogen atom, a halogen atom, an alkyl group, a cycloalkyl group, an

aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, an alkylcarbonyl group, an arylcarbonyl group, an amino group, an alkylamino group, an arylamino group, a cyano group or a nitro group, the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group, the aryloxy group, the alkylcarbonyl group, the arylcarbonyl group, the alkylamino group or the arylamino group can be substituted with a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, an alkylcarbonyl group, an arylcarbonyl group, an amino group, an alkylamino group, an arylamino group, a cyano group or a nitro group;

$R^4$  and  $R^5$ , which are the same or different, represent a hydrogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group or an acyl group, the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group, the aryloxy group or the acyl group can be substituted with a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, an alkylcarbonyl group, an arylcarbonyl group, an amino group, an alkylamino group, an arylamino group, a mercapto group, an

alkylthio group, an arylthio group, a cyano group, a nitro group or a heterocycle, and further the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group, the aryloxy group, the alkylcarbonyl group, the arylcarbonyl group, the alkylamino group, the arylamino group, the alkylthio group, the arylthio group or the heterocycle can be substituted with an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, an alkoxyalkoxy group, a carboxy group or its ester;  $R^4$  and  $R^5$  can be bound to form a heterocycle, the heterocycle can be substituted with a halogen atom, an alkyl group, a cycloalkyl group, an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, a carboxy group or its ester, and further the alkyl group, the cycloalkyl group, the aryl group, the alkoxy group or the aryloxy group can be substituted with an aryl group, a hydroxyl group or its ester, an alkoxy group, an aryloxy group, an alkoxyalkoxy group, a carboxy group or its ester; and

$A_1$  represents an alkylene group.

Claim 14. (new) The method as claimed in claim 12, wherein the  $\kappa$ -opioid receptor agonist is

(+)-3-acetyl-6-chloro-2-[2-(3-(N-(2-hydroxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazoline,

(+)-3-acetyl-6-chloro-2-[2-(3-(N-(2-methoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazoline,  
(+)-3-acetyl-6-chloro-2-[2-(3-(N-(2-ethoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazoline,  
(+)-3-acetyl-6-chloro-2-[2-(3-chloropropoxy)-5-methoxyphenyl]benzothiazoline,  
3-acetyl-6-chloro-2-[2-(3-(N-(2-hydroxyethyl)-N-isopropylamino)-1-methylpropoxy)-5-methoxyphenyl]benzothiazoline,  
(+)-2-[2-(3-(N-(2-acetoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]-3-acetyl-6-chlorobenzothiazoline,  
(+)-3-acetyl-6-chloro-2-[2-(3-(N-isopropyl-(N-methoxymethoxyethyl)amino)propoxy)-5-methoxyphenyl]benzothiazoline,  
3-acetyl-6-chloro-2-[2-(3-(N-(2-ethoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazolinediacetyl  
or a pharmaceutically acceptable salt thereof.

Claim 15. (new) The method as claimed in claim 13, wherein the  $\kappa$ -opioid receptor agonist is

(+)-3-acetyl-6-chloro-2-[2-(3-(N-(2-hydroxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazoline,

(+)-3-acetyl-6-chloro-2-[2-(3-(N-(2-methoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazoline,  
 (+)-3-acetyl-6-chloro-2-[2-(3-(N-(2-ethoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazoline,  
 (+)-3-acetyl-6-chloro-2-[2-(3-chloropropoxy)-5-methoxyphenyl]benzothiazoline,  
 3-acetyl-6-chloro-2-[2-(3-(N-(2-hydroxyethyl)-N-isopropylamino)-1-methylpropoxy)-5-methoxyphenyl]benzothiazoline,  
 (+)-2-[2-(3-(N-(2-acetoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]-3-acetyl-6-chlorobenzothiazoline,  
 (+)-3-acetyl-6-chloro-2-[2-(3-(N-isopropyl-(N-methoxymethoxyethyl)amino)propoxy)-5-methoxyphenyl]benzothiazoline,  
 3-acetyl-6-chloro-2-[2-(3-(N-(2-ethoxyethyl)-N-isopropylamino)propoxy)-5-methoxyphenyl]benzothiazolinediacetyl  
 or a pharmaceutically acceptable salt thereof.

Claim 16. (new) The method as claimed in claim 10, wherein the  $\kappa$ -opioid receptor agonist is an arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative.



Claim 17. (new) The method as claimed in claim 11, wherein the  $\kappa$ -opioid receptor agonist is an arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative.

Claim 18. (new) The method as claimed in claim 16, wherein the arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative is

trans-2-(3,4-dichlorophenyl)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]acetamide or a pharmaceutically acceptable salt thereof.

Claim 19. (new) The method as claimed in claim 17, wherein the arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative is

trans-2-(3,4-dichlorophenyl)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]acetamide or a pharmaceutically acceptable salt thereof.

Claim 20. (new) The method as claimed in claim 16, wherein the arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative is

2,2-diphenyl-N-[2-(3-(S)-hydroxy-1-pyrrolidinyl)-1-(S)-phenylethyl]methylacetamide or a pharmaceutically acceptable salt thereof.

Claim 21. (new) The method as claimed in claim 17, wherein the arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative is

2,2-diphenyl-N-[2-(3-(S)-hydroxy-1-pyrrolidinyl)-1-(S)-phenylethyl]methylacetamide or a pharmaceutically acceptable salt thereof.

Claim 22. (new) The method as claimed in claim 16, wherein the arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative is

2-(3,4-dichlorophenyl)-N-methyl-N-[(5R\*,7S\*,8S\*)-7-(1-pyrrolidinyl)-1-oxaspiro[4,5]deca-8-yl]acetamide or a pharmaceutically acceptable salt thereof.

Claim 23. (new) The method as claimed in claim 17, wherein the arylacetic acid (N-alkyl-N-(N',N'-dialkyl)aminoalkyl)amide derivative is

2-(3,4-dichlorophenyl)-N-methyl-N-[(5R\*,7S\*,8S\*)-7-(1-pyrrolidinyl)-1-oxaspiro[4,5]deca-8-yl]acetamide or a pharmaceutically acceptable salt thereof.

Claim 24. (new) The method as claimed in claim 10, wherein the  $\kappa$ -opioid receptor agonist is continuously administered.

Claim 25. (new) The method as claimed in claim 11, wherein the  $\kappa$ -opioid receptor agonist is continuously administered.